

**CLAIMS**

What is claimed is:

1. A membrane material for fabric structures having enhanced reversible thermal properties comprising a basic woven fabric which is coated at least on one side with a polymeric compound containing finely divided phase change materials.
2. A membrane material according to claim 1, wherein the polymeric coating compound containing the finely divided phase change materials consists of an elastomeric material.
3. A membrane material according to claim 1, wherein the woven fabric is coated on both sides with a polymeric compound which contains the finely divided phase change material.
4. A membrane material according to claim 1, wherein the woven fabric is coated on one side with a polymeric compound which contains the finely divided phase change material and no coating is applied to the other side of the fabric.
5. A membrane material according to claim 1, wherein the woven fabric is coated on one side with a polymeric compound which contains the finely divided phase change material and is coated on the other side with a polymeric compound which does not contain phase change material.
6. A membrane material according to claim 1, wherein the phase change material is a crystalline alkyl hydrocarbon.
7. A membrane material according to claim 1, wherein the phase change material is a salt hydrate.
8. A membrane material according to claim 1, wherein the polymeric coating compound comprises phase change material in a quantity of up to 60 wt.%, based on the total weight of the polymeric compound.
9. A membrane material according to claim 1, wherein the phase change materials have melting points in the range between 30 °C and 50 °C.
10. A membrane material according to claim 1, possessing a latent heat storage capacity of up to 150 kJ/m<sup>2</sup>.
11. A membrane material according to claim 1, wherein the polymeric coating compound contains flame-retarding additives in addition to the phase change material.

- 12. A membrane material according to claim 1, those translucency changes in connection with the phase transition of the phase change material.**